only been able to collect eight authentic cases reported since that time. The case under discussion was that of a boy, aged fourteen years, who for six months before death had had occasional choreiform attacks and a petechial eruption over parts of the body. He was admitted to the hospital with symptoms of cerebral hemorrhage. At autopsy a large hemorrhage was found over the cortex of the cerebrum. Multiple miliary aneurisms were discovered in the coronary arteries and in the lesser arteries of the stomach and intestines, besides which there were small nodules situated above the vessels and occasional thromboses, giving rise in the heart to disseminated areas of necrosis. Histological examination of the aneurisms and periarteritic nodules showed that the earliest change consisted in an invasion of the adventitia of the smallest vessels by great numbers of leucocytes, while in a later stage the process extended to the media and produced grave defects in that coat. Owing to these alterations the vessel walls appeared unable to withstand the blood pressure, and therefore the coats were stretched and thinned, or the elastica torn into short fibres. In the more advanced lesions the infiltration of leucocytes had subsided, and connective tissue cells made their way from the adventitia through the media and elastica into the intima, overgrowing and replacing the leucocytes. The hyaline-like band described by Meyer, Graf, Müller, and Freund which lies between the thickened intima and the atrophied media was formed by a coagulation necrosis of the exudate in the vessel walls. The authors conclude, in reviewing the cases so far recorded, that the symptomatology of the disease is so varied and confusing that one can scarcely recognize the affection clinically as an entity. They emphasize particularly the fact that the changes in the vessels and thickening of the intima especially are dependent upon a process which originates in the adventitia of the arteries.

Lesions of the Red Bone-marrow in Typhoid Fever, with Special Reference to the Vertebræ.—E. FRAENKEL (*Mit. aus den Grenzgeb. der Med. u. Chir.*, 1903, Bd. x. p. 1) says that in 1894 Quincke made the announcement that he had found typhoid bacilli in the bone-marrow of eight out of nine cases of typhoid fever. Since then his observations have been confirmed by other authors. Fraenkel investigated thirteen cases of typhoid, and in every instance recovered typhoid bacilli in great numbers from the marrow of the vertebræ. The presence of the bacilli in the bone-marrow bore no relation to their numbers in the blood; in the former situation they were found as late as the sixth week of the disease. Sections from the bone-marrow of the femur and vertebræ showed definite histological lesions. Besides hemorrhages, accumulations of small round cells, and diffuse areas of degeneration, changes which may occur in other varieties of acute infections, and were not considered specific, certain other lesions which the author believes are peculiar to typhoid fever were found with great constancy. These lesions consisted in small areas of focal necrosis infiltrated with a delicate network of fibrin threads, but not surrounded by a zone of reaction. They are probably produced by a slow action of the typhoid toxin upon the bone-marrow cells and upon the lymphatics, in the latter case causing rupture of the wall of the lymph vessel and an escape of lymph, thereby giving rise to the mesh of fibrin lying between and about the necrotic cells. Typhoid bacilli were not necessarily associated with the lesions. The condition is not known to occur in diphtheria, scarlet fever, erysipelas, pneumonia or peritonitis, but in variola Chiari has described somewhat similar areas. The author believes these areas of focal necrosis are as characteristic of typhoid fever as any of the histological lesions found in the other organs, and suggests the name of "osteomyelitis typhosa" to describe the condition.

The Dysentery Bacillus in a Series of Cases of Infantile Diarrhœa.—WOLLSTEIN (*Journal of Med. Research*, 1903 vol. x. p. 10) during the past winter examined the stools in one hundred and fourteen cases of infantile diarrhœa occurring in New York. In thirty-nine instances she was able to isolate the B. dysenteriæ (Shiga). The clinical picture of dysentery associated with frequent bloody and mucous stools was present in most of the positive cases; but in some stools, though mucus was noted, there was no blood. For early diagnostic purposes the serum reaction could not be relied upon, since it rarely occurred during the first week, and frequently was not positive for two weeks. The isolation of the B. dysenteriæ from the stools was the only positive evidence of infection during life. The bacilli were found in the stools for a period of two to three weeks, and they occasionally remained for a longer time.

A Study of the Proteolytic Enzymes and of the So-called Hæmolysins of Some of the Common Saprophytic Bacteria.—ABBOTT and GILDERSLEEVE (*Journal of Med. Research*, 1903, vol. x. p. 42) conclude from their experiments made with the filtered products of the growths of B. prodigiosus, B. proteus vulgaris, B. subtilis, etc., in gelatin, bouillon, and other media that the destiny of these non-toxic but otherwise physiologically characteristic products of bacterial life in the body is determined by the presence of a specific neutralizing substance that can be demonstrated in the circulating blood. By the customary methods of artificial immunization the amount of such antidotal substances in the blood may be increased, though only to a slight degree; and through the use of sera from animals immunized from the non-toxic bacterial products it is possible to distinguish the proteolytic enzymes resulting from the growth of different bacterial species from one another as well as from certain physiologically analogous enzymes of animal origin such as trypsin.

The proteolytic enzymes elaborated by certain bacteria in the course of their growth are much more resistant to high temperatures than is generally supposed, some being capable of exhibiting their characteristic function after exposure in the moist state to a temperature of 100° C. for fifteen to thirty minutes. The so-called hæmolysins of bacterial origin, are at least in some cases proteolytic enzymes. The authors believe that it is possible by experimental means to contribute material support to the doctrine of Welch concerning the origin of bacteriogenic cytotoxins.

Experimental Researches in the Inoculation of Syphilis in the Monkey ("Bonnet Chinois").—NICOLLE (*Ann. de l'Instit. Past.*, 1903, T. xvii. p. 636) reports three experiments which were made before Metschnikoff's and Roux's communication, but which have hitherto remained unpublished. The cutaneous inoculation of three monkeys with the products of chancre resulted in the development, after fifteen